

Agent's Docket N. 23786/DOB/rf

OFFICIAL

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872-9302

Milan,
September 24, 2004

Daniel O'Byrne
Daniel O'Byrne (Reg. No. 36,625)

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Ret re
Aband.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:)
Applicant: QUADRANA, Marcello)
Ser. No.: 09/322,248) Group Art Unit: 3725
Filed: May 28, 1999) Examiner: HONG, William
For: FOOD GRINDER)

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SEP 24 2004

Assistant Commissioner for Patents
Washington D.C. 20231 USA

PETITION UNDER 37 CFR. 1.181 FOR WITHDRAWAL OF HOLDING OF
ABANDONMENT

Sir,

On September 3, 2004, I, the undersigned agent of applicant, telephoned the USPTO for information regarding the status of the above-identified application.

I was informed by the 3700 group receptionist that the USPTO records indicate that the application has been considered by the Office to be abandoned on July 21, 2000 for failure to respond to an Office action.

Applicant has not received any notice from the Office regarding the supposed abandonment of this application.

Applicant respectfully submits however that such holding of abandonment is in error, and that the application should never have been considered as abandoned.

Applicant respectfully requests reconsideration of the holding of abandonment in view of the fact that there is no abandonment in fact.

Attention of the Examiner is drawn to the following facts:

Applicant's proper reply (hereinafter referred to as the "AMENDMENT") to the

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Office letter mailed on December 17, 1999, together with a petition for extension of time under 37 CFR 1.136(a), requesting three months extension and addressing the related fee of US\$ 435.00, (hereinafter referred to as the "PETITION FOR EXTENSION") both duly executed by the Applicant's Agent, were timely sent via telefax on June 16, 2000 to the United States Patent and Trademark Office. Attached hereto as EXHIBIT A is a photocopy of the original AMENDMENT and PETITION FOR EXTENSION executed by the applicant's agent, and sent via telefax on June 16, 2000 to the Office, and including a photocopy of the original "TRANSMISSION RESULT REPORT" (RAPPORTO RISULTATO TRASMISSIONE) for such original AMENDMENT and PETITION FOR EXTENSION indicating the date of 16 June ("DATA - 16 GIU.") and time (ORA - 10:37 hours local Milan time) of facsimile transmission, the dialed telephone number ("INDIRIZZO" - 703 305 3579), the duration of the transmission ("DURATA" - 4'50"), the number of pages sent ("PAG" - 16) and the result ("ESITO" - OK) of the transmission. The original AMENDMENT and PETITION FOR EXTENSION have been found by the undersigned agent (immediately after the undersigned agent became aware of the Abandonment) in the agent's docket for the present patent application, with the original TRANSMISSION RESULT REPORT stapled thereto. It is a normal procedure in the undersigned agent's firm that persons sending facsimiles attach the TRANSMISSION RESULT REPORT automatically printed by the facsimile machine to each corresponding letter sent through the same machine.

Attached hereto as EXHIBIT B is a declaration made by the clerk who sent the Office the facsimile communication concerning the original AMENDMENT and PETITION FOR EXTENSION, attesting to the timely transmission of such AMENDMENT and PETITION FOR EXTENSION.

Based upon the Certificate of Transmission of the original AMENDMENT and PETITION FOR EXTENSION, and based upon the information of the TRANSMISSION RESULT REPORT of the original AMENDMENT and PETITION FOR EXTENSION, the undersigned agent herewith attests that the original AMENDMENT and PETITION FOR EXTENSION were timely filed to the US Patent Office on June 16, 2000.

Accordingly, it can only be assumed that such AMENDMENT and PETITION FOR EXTENSION reached the Office properly and timely, but that for some reason have

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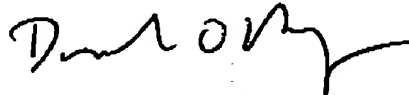
gone missing thereafter.

In view of the foregoing, it is believed that this request for reconsideration of holding of abandonment is fully justified and should be accepted by the USPTO.

Therefore, it is respectfully requested that the attached AMENDMENT and PETITION FOR EXTENSION be entered and considered by the Examiner. Since the relative fees have increased since the previous filing of the petition of extension of time, it is herewith requested that the Office charge the deposit account number 13-3860 in the amount of US\$ 475.00 (fee code 2253) to cover the cost of the extension.

I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true. Moreover, I acknowledge and understand that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Respectfully submitted,



Daniel O'Byrne (Reg. No. 36,625)
Agent for the Applicant

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Encl.: EXHIBITS A and B.

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EXHIBIT A

USSN 09/322,248 filed 5.28.1999

I hereby certify that this paper including 14 pages is being facsimile transmitted to the Patent and Trademark Office (N. 001 703 305 3579) on the date shown below.

OFFICIAL

Daniel O'BYRNE (Reg. No. 36,625)

Daniel O'Byrne

June 16, 2000

Docket N. 23786/MI/pf

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : QUADRANA, Marcello

Ser. No. : 09/322,248

Filed : May 28, 1999

For : FOOD GRINDER

Group A.U.: 3725

Examiner : HONG, William

Commissioner for Patents

Washington D.C. 20231 U.S.A.

Sir,

This is in response to the Office Action dated December 17, 1999, for which a petition is being concurrently submitted requesting an extension of the time for response for three months from March 17, 2000 to June 17, 2000.

The undersigned registered Agent has been appointed by the applicant to continue prosecution of the present application. A duly executed Power of Attorney will be

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timely filed.

Please amend the application as follows:

In the claims

Please cancel claims 1-17 without prejudice, and thereafter add the following new claims:

- ~~1-18~~ 18. A food grinding machine, comprising:
- a static outer jacket including a peripheral wall enclosing an inner space, and being coupleable to a loading inlet of the grinding machine;
 - a plurality of successive annular recesses being formed in said peripheral wall, said recesses having preset volumes and being separated one from the other;
 - a food pusher and cutter element being mounted in said inner space for rotation coaxial to said jacket for advancing food along a food processing path;
 - a plurality of screening means defining differentiated screening passage regions, each of which is formed by sets of through holes provided in sequence along the food processing path for screening processed food, said screening means being interposed between said pusher and cutter element and said jacket and arranged with each one of said sets of through holes in a corresponding relationship with a respective one of said recesses;
 - a plurality of collar elements, each of which is located

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between two consecutive sets of holes forming said screening regions, and connects two consecutive screening means; and
- a plurality of free passage means for allowing free passage of the processed food from a screen passage region to a subsequent screen passage region, said free passage means being constituted by through slots, provided at said collar elements and having such a holed surface so as to allow free, non-screening passage of the food processed from one side of the screening means to the opposite side;

wherein said food processing path includes said plurality of successive recesses, said through slots forming said free passage means, and said plurality of screening means through each of which the processed food is advanced by said pusher and cutter element by being inserted through a said screening means into, and subsequently extracted through a said free passage means out of a said recess and further inserted through a subsequent said screening means into a subsequent said recess.

2 ~~18~~. The grinding machine of claim ~~18~~, wherein said annular recesses have each a transverse cross section with rounded edges which are blended with concurrent edges with a convex profile to define a forced path for the processed food, each convex profile furthermore acting as supporting and locking element for said screening means.

3 ~~20~~. The grinding machine of claim ~~18~~, wherein said pusher and cutter element is constituted by blade elements, having sharp helical edges oriented so as to provide a screw feeding effect and to skim an internal surface of said screening means as the blade elements rotate.

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4 ~~21~~. The grinding machine of claim ~~18~~¹, wherein said plurality of screening means each includes a thin hollow cylindrical body coaxially arranged with respect to said jacket and comprising said sets of through holes distributed on surface regions thereof, said sets of holes defining said differentiated screening passage regions.

5 ~~22~~. The grinding machine of claim ~~21~~⁴, wherein at each of said differentiated screening passage regions a respective set of through holes is provided with the holes being in such a number and with such a diameter so that a resulting total holed surface is provided for each of said screening passage regions, which is substantially constant.

6 ~~23~~. The grinding machine of claim ~~18~~¹, wherein the peripheral wall of said static outer jacket flares outwards.

7 ~~24~~. The grinding machine of claim ~~23~~⁶, wherein said screening means are constituted by a plurality of successive hollow cylinders having corresponding sets of through holes with diameters decreasing from one cylinder to a subsequent cylinder along said food processing path, said hollow cylinders being arranged mutually coaxial and joined to each other through a respective one of said collar elements, with the diameters of said hollow cylinders increasing along said food processing path.

8 ~~25~~. The grinding machine of claim ~~24~~⁷, wherein for each of said hollow cylinders, the through holes are in such a number and with such a diameter that the holed surfaces are substantially constant.

9 ~~26~~. The grinding machine of claim ~~25~~⁸, wherein axes of said through holes are inclined in an orientation along said

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food processing path.

10. In a food grinding machine, having:

-a static outer jacket including a peripheral wall enclosing an inner space, said jacket being coupleable to a loading inlet of the grinding machine; and

-a plurality of successive annular recesses provided in said peripheral wall, said recesses having preset volumes and being separated one from the other;

a food cutting assembly comprising:

-a food pusher and cutter element being mounted in said inner space for rotation coaxial to said jacket, said food pusher and cutter element comprising helical blades adapted to advance processed food along a food processing path;

- a plurality of screening means defining differentiated screening passage regions provided in sequence along the food processing path for screening the processed food, said screening means being each formed by a set of through holes and being interposed between said pusher and cutter element and said jacket and arranged with said set of through holes in a corresponding relationship with a respective one of said recesses;

-a plurality of collar elements, each of which separating two consecutive screening passage regions and connecting two consecutive respective screening means which define said two consecutive screening passage regions; and

- a plurality of free passage means for allowing free passage of the processed food from a screen passage region to a subsequent screen passage region, said free passage means being constituted by through slots provided at said

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collar elements, said through slots having such a holed surface so as to allow free, non-screening passage of the processed food from one side of the screening means to the opposite side;

wherein each one of said set of through holes comprises holes with diameters which vary from a region to another along said food processing path, said holes in each said hole set being in such a number that a resulting total holed surface for each of said screening passage regions is substantially constant.

11 ¹⁰ 28. The grinding machine of claim 27, wherein each of said annular recesses has a transverse cross-section with rounded edges which are blended with concurrent edges with a convey profile to define a forced path for the processed food, each convex profile furthermore acting as supporting and locking element for said screening means.

12 ¹⁰ 29. The food cutting assembly of claim 27, wherein said blades have sharp helical edges oriented so as to provide a screw feeding effect and to skim an internal surface of said screening means as the blade elements are rotated.

13 ¹⁰ 30. The food cutting assembly of claim 27, wherein said plurality of screening means each includes a thin hollow cylindrical body coaxially arranged with respect to said jacket of the grinding machine and comprising said sets of through holes distributed on successive surface regions thereof, said sets of holes defining said differentiated screening passage regions.

14 ¹⁰ 31. The grinding machine of claim 27, wherein the peripheral wall of said outer jacket flares outwards.

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15 32. The food cutting assembly of claim ¹⁰27, wherein said screening means include a plurality of successive hollow cylinders having each a respective one of said sets of through holes with diameters decreasing from one cylinder to a subsequent cylinder along said food processing path, and wherein said hollow cylinders are arranged mutually coaxial, have diameters which increase along said food processing path, and are joined to each other through a respective one of said collar elements.

16 33. The food cutting assembly of claim ¹⁵32, wherein axes of said through holes are included in an orientation along said food processing path.

17 34. In a food grinding machine, having:
-a static outer jacket including a peripheral wall enclosing an inner space, said jacket being coupleable to a loading inlet of the grinding machine; and
-a plurality of successive annular recesses provided in said peripheral wall, said recesses having preset volumes and being separated one from the other;

a food cutting assembly comprising:

-a food pusher and cutter element being mounted in said inner space for rotation coaxial to said jacket, said food pusher and cutter element comprising a plurality of consecutive screw feeder blade elements separated by annular ridges, which are adapted to advance processed food along a food processing path;
- a plurality of screening means defining differentiated screening passage regions provided in sequence along the food processing path for screening the processed food, said

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screening means being each formed by a set of through holes and being interposed between said pusher and cutter element and said jacket and arranged with said set of through holes in a corresponding relationship with a respective one of said recesses;

-a plurality of collar elements each of which separates two consecutive screening passage regions, said collar elements providing further structural connection between each two consecutive respective screening means which define said consecutive screening passage regions; and

- a plurality of free passage means for allowing free passage of the processed food from a screen passage region to a subsequent screen passage region, said free passage means being constituted by through slots provided at said collar elements, said through slots having such a holed surface so as to allow free, non-screening passage of the processed food from one side of the screening means to the opposite side.

18 ¹⁷/₃₅. The food cutting assembly of claim ¹⁷/₃₄, wherein said screw feeder blade elements each comprises blades having edges thereof which deviate, before merging into a respective one of said ridges located upstream along said food processing path, to form at each region of a said blade facing a said collar element a respective pocket that facilitates passage of processed food from a said annular recess of said jacket to grooves formed between said blades.

19 ¹⁸/₃₆. The food cutting assembly of claim ¹⁸/₃₅, wherein said plurality of screening means each includes a thin hollow cylindrical body coaxially arranged with respect to

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said jacket of the grinding machine and comprising said sets of through holes distributed on successive surface regions thereof, said sets of holes defining said differentiated screening passage regions.

20 31. The food cutting assembly of claim 17, wherein said screening means include a plurality of successive hollow cylinders having each a respective one of said sets of through holes with diameters decreasing from one cylinder to a subsequent cylinder along said food processing path, and wherein said hollow cylinders are arranged mutually coaxial, have diameters which increase along said food processing path, and are joined to each other through a respective one of said collar elements, the peripheral wall of said outer jacket of the grinding machine flaring outwards so as to accommodate said screening means, and wherein said blade elements have blades with edges thereof including beveled regions located at an end of said blade elements which is arranged so as to skim over said collar elements.--

Remarks

The Examiner's comments and objections, set forth all through the examination, and the cited references have been carefully considered by the Applicant.

Claim rejection under 35 | 102

From the "Response to Arguments", particularly from

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those comprised in the Office Action dated, on the last page, November 23, 1998, Applicant understands that the "free passage means" recited by the Applicant were deemed equivalent to the recesses 43 of the outer jacket 17 disclosed by Manser et al (US 4,104,958) in Figure 2 and column 7, lines 35-40 of the specification.

Accordingly the "free passage means" have been redefined in the new main claims 18, 27 and 34, which now clearly define such passages, distinctly from the jacket recesses 4 (43 in Manser et al), as being constituted by through slots located at collar elements separating the sets of holes forming the perforated screening regions, while structurally connecting the screening means. The slots have been defined, unlike the screening perforations of each screening means, to allow free, non-screening passage of the processed food from one side to the opposite one of the screening means.

It is also submitted that the slot passages, are implicitly defined as providing a food passage, which is different from the ones defined by the sets of screening perforations that have for each screening region different diameters and a same holed surface (Claim 27).

Claim Rejections under 35 § 103

It is submitted that none of the cited prior documents discloses or suggests the combination of features of the new

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independent claims, in particular the screening element formed by consecutive screening regions separated by collars with slotted, non-screening passages, and providing a processing path as claimed, contributing to solve the problem set forth at page 2, lines 1-11, while achieving the advantages set forth at page 3, lines 1-3.

The internal pressure during processing is accordingly reduced through an easier transfer of the product along the processing path, by providing the free passage means-slots 11, which also help avoiding meat agglomerations.

The easy meat transfer is even more enhanced in the embodiment with the flared jacket.

Such a feature clearly helps even more to solve the stated problem, in that the provision of the slots 11, as clearly shown in figure 3, substantially perpendicular to the meat flow through the recesses 4, clearly facilitates, more than the slot configuration of the first embodiment, the movement of the product and reduce practically to nil the food agglomeration risk.

Therefore the same nexus problem-solution is clearly present for this embodiment also from the outset, as for the first embodiment.

It is accordingly submitted that there is no teaching or prompt in the prior art for an assembly including a processing path, as in the applicant's claimed invention.

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In particular, Yang teaches a "force feeding element 40" being is conical in shape (column 2, lines 40-45). However there is no suggestion for a stepped configuration as that claimed by the applicant, which allows provision of slotted free passages, in collar elements connecting the screening regions, being perpendicular to the food flow path.

It will be noted also that flaring the housing has practically little impact on reducing the amount of pressure in the cutting assembly.

It is known that the critical pressure is given by the formula

$$p=F/S (1),$$

where F is the force applied by the processed product onto the screening element- which is constituted mainly by the centrifugal force component, and S is the surface on which the force applies, i.e. that of the screening region.

The force F actually includes:

-the centrifugal force F_c , the variation whereof upon radius increase does not influence the pressure p (when F_c is divided by S, the radius r simplifies);

-and further the radial and axial components of the force F_t , generated at each blade-tooth by the motor torque M, and determining upward and lengthwise sliding motion of the meat along the sides of the teeth (differently from actually happens with the straight teeth of Manser et al where only centrifugal forces appear to act);

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such components are given by formulas of the type applying for the helical gears (projections of the force F_t multiplied by the cosine and sine of the helix angle and of the tooth side inclination). The tooth inclination, which is apparent from figures 2 and 4, is close to 0° , and as such the sine-function tends to 0. This gives almost negligible pressure variations due to the radial component of the force for radius increases in the range achievable for the flared jacket of figure 3.

Therefore the best benefit, in terms of dynamic pressure reduction derives from the "free passage means" which also avoid the food agglomeration that may raise the static pressures in the food mass.

In fact the increased fabrication difficulty and consequent higher cost for obtaining the flared jacket and the corresponding stepped screening element and cutter, would surely constitute decisive arguments for the skilled person, in view of the almost negligible pressure reduction obtainable, to discard such a variant.

It will also be noted that the straight blades disclosed by Manser et (fig. 3) are not adapted to make the meat circulate along the tooth sides and upwardly, towards and through the sequence of screening regions and recesses, whereby to avoid meat agglomeration and stress build up on the tooth edges.

Nor are they suitable for exerting the cutting effect

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of the applicant's helical blades in skimming contact with screening regions (New Claims 27 and 34).

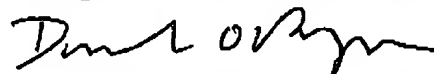
On the other hand there is no teaching in the cited prior documents for the person skilled in the art to modify the cutter of Manser to provide the blades as in the applicant's invention.

Accordingly, the claims, as now drafted, and the amended specification are believed to meet the allowability requirements.

Positive action is respectfully solicited.

While it is believed that the amended claims properly and clearly define the present invention, applicant would be open to any suggestion or amendment the Examiner may have or propose concerning different claim phraseology which, in the Examiner's opinion, more accurately defines the present invention.

Respectfully submitted



Daniel O'BYRNE (Reg. No. 36,625)

Agent for the applicant

Via Del Parione, 8

50123 FIRENZE - ITALY

Firenze: June 16, 2000

Encl.: - Petition for Extension of Time.

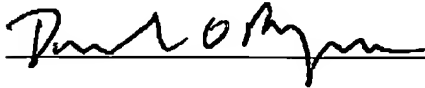
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June 16, 2000

Docket N. 23786/pf

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Assistant Commissioner for Patents

Washington D.C. 20231 U.S.A.

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PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)

The applicant herewith petitions the Commissioner of Patents and Trademarks to extend the time for response to the Office action dated December 17, 1999 for three months from March 17, 2000 to June 17, 2000.

USSN 09/322,248 filed 5.28.1999

Please charge the deposit account number 13-3860, in the amount of US\$ 435.00 (fee code 217) to cover the cost of the extension.

Any deficiency or overpayment should be charged or credited to the above numbered deposit account.

Respectfully submitted,



Daniel O'BYRNE

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Firenze: June 16, 2000